

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2004/002084

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C12N 15/13, C12P 21/08, C07K 16/10, C07K 16/46, G01N 33/569, A61K 39/395, A61K 39/215  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C12N 15/13, C12P 21/08, C07K 16/10, C07K 16/46, G01N 33/569, A61K 39/395, A61K 39/215

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)  
GenBank; GeneSeq; PIR (sequence search: SEQ ID Nos: 1-36) and Delphion; Science Citation Index Expanded; Medline (keywords: antibod\*, SARS, monoclonal)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
X,P,L	GUBBINS MJ ET AL: "Molecular characterization of a panel of murine monoclonal antibodies specific for the SARS-coronavirus". MOLECULAR IMMUNOLOGY, Vol.42, 9 August 2004 (2004-08-09), pages 125-136, [online], [retrieved on 2005-04-20]. Retrieved from the Internet <URL: <a href="http://dx.doi.org/10.1016/j.molimm.2004.06.032">http://dx.doi.org/10.1016/j.molimm.2004.06.032</a> > whole document	1-10
X,P	BERRY JD ET AL: "Development and characterization of neutralising monoclonal antibody to the SARS-coronavirus". JOURNAL OF VIROLOGICAL METHODS, Vol.120, No.1, 1 September 2004 (2004-09-01), pages 87-96 whole document	1-10
X,P	SUI J ET AL: "Potent neutralization of Severe Acute Respiratory Syndrome (SARS) coronavirus by a human MAb to S1 protein that blocks receptor association". PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES Vol.101, No.8, February 24, 2004 (2004-02-24), pages 2536-2541 whole document	1-4

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"V" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 20 April 2005 (20-04-2005)	Date of mailing of the international search report 29 April 2005 (29-04-2005)
Name and mailing address of the ISA/CA Canadian Intellectual Property Office Place du Portage I, C114 - 1st Floor, Box PCT 50 Victoria Street Gatineau, Quebec K1A 0C9 Facsimile No.: 001(819)953-2476	Authorized officer Kristoffer Wilde (819) 953-0551

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
X,P	ZHOU T ET AL: "An exposed domain in the Severe Acute Respiratory Syndrome coronavirus spike protein induces neutralizing antibodies" JOURNAL OF VIROLOGY. Vol.78, No.13, July 2004, pages 7217-7226 whole document	1-4
Y	CHE XY ET AL: "Rapid and efficient preparation of monoclonal antibodies against SARS-associated coronavirus nucleocapsid protein by immunizing mice" DI YI JUN YI DA XUE XUE BAO. Vol.23, No.7, July 2003, pages 640-642. (abstract) Medline [online], [retrieved on 2005-04-20], Retrieved from the Internet: <URL: <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> > Medline accession no. 12865208	1-4
X,P	WO 2004/092332 A2 (CIPHERGEN BIOSYSTEMS, INC) 28 October 2004 (2004-10-28) whole document, especially page 7, lines 18-27 and claims 38-40	1-4 & 9
X,P	HE Y ET AL: "Receptor-binding domain of SARS-CoV spike protein induces highly potent neutralizing antibodies: implicated for developing subunit vaccine". BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS. Vol.324, 2 October 2004 (2004-10-02), pages 773-781, [online], [retrieved on 2005-04-20]. Retrieved from the Internet: <URL: <a href="http://dx.doi.org/10.1016/j.bbrc.2004.09.106">http://dx.doi.org/10.1016/j.bbrc.2004.09.106</a> > whole document	9
X,P	XIONG S ET AL: "Immunogenicity of SARS inactivated vaccine in BALB/c mice" IMMUNOLOGY LETTERS. Vol.95, 1 August 2004 (2004-08-01), pages 139-143, [online], [retrieved on 2005-04-20]. Retrieved from the Internet: <URL: <a href="http://dx.doi.org/10.1016/j.imlet.2004.06.014">http://dx.doi.org/10.1016/j.imlet.2004.06.014</a> > whole document	9
X,P	WO 2004/092360 A2 (CHIRON CORPORATION) 28 October 2004 (2004-10-28) whole document	9
X,E	WO 2005/010034 A1 (NATIONAL INSTITUTES OF HEALTH) 3 February 2005 (2005-02-03) whole document	1-4 & 9
X,E	WO 2005/027847 A2 (ALEXION PHARMACEUTICALS, INC) 31 March 2005 (2004-03-31) whole document	1-4 & 9
Y	HOLMES K: "SARS coronavirus: a new challenge for prevention and therapy" THE JOURNAL OF CLINICAL INVESTIGATION. Vol 111, 1 June 2003 (2003-06-01), pages 1605-1609 whole document, especially figure 2 and page 1608 second column	1-4 & 9
Y	ROTA PA ET AL: "Characterization of a novel coronavirus associated with severe acute respiratory syndrome" SCIENCE. Vol.300, 30 May 2003 (2003-05-30), pages 1394-1399 whole document	1 - 4 & 9

# INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
WO2004092332	28-10-2004	none	
WO2004092360	28-10-2004	none	
WO2005010034	03-02-2005	none	
WO2005027847	31-03-2005	none	

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**Box No. I**      **Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)**

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
  - a. type of material
    - ☒ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☒ in written format
    - ☒ in computer readable form
  - c. time of filing/furnishing
    - ☒ contained in the international application as filed.
    - ☒ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments :